

Appendix S: Areas of Critical Environmental Concern Evaluation Relevance and Importance Criteria

Introduction

As part of the planning process for the PRMP/FEIS for the Kremmling Field Office (KFO), the Bureau of Land Management (BLM) Interdisciplinary (ID) Team analyzed whether proposed Areas of Critical Environmental Concern (ACECs) meet the relevance and importance criteria for potential designation. This Appendix presents the portion of the ACEC Report that is applicable to the KFO Planning Area.

The KFO analyzed 171 proposed ACECs, and found that eight meet the relevance and importance criteria (see Map S-1):

- **North Park Natural Area** -- This is an existing, ACEC, with a total of 318 acres (see Tables S-1 and S-2; Maps S-1 and S-2);
- **North Park Natural Area ACEC** -- This is a Recommended ACEC (external nomination), an extension of the current ACEC, with a total of 4,444 proposed acres (which includes the 318 acres of the existing ACEC) (see Tables S-1 and S-2; Maps S-1 and S-2);
- **Kremmling Cretaceous Ammonite ACEC** -- This is an existing ACEC, with a total of 198 acres (see Tables S-1 and S-2; Maps S-1 and S-9).
- **Kremmling Potential Conservation Area (PCA)** -- This is a Recommended ACEC (external nomination), with a total of 674 acres (see Tables S-1 and S-2; Maps S-1 and S-3); The acreage of this proposed ACEC was expanded in the Proposed Plan due to comments received by the USFWS.
- **Laramie River Valley Shale Outcrops Recommended ACEC** -- This is a Recommended ACEC (external nomination), with a total of 1,783 acres (see Tables S-1 and S-2; Maps S-1 and S-4);
- **North Sand Hills** -- This is a Recommended ACEC (external nomination), with a total of 486 acres (see Tables S-1 and S-2; Maps S-1 and S-5). The acreage of this proposed ACEC was expanded in the Proposed Plan due to new information on the Boat-shaped bugseed.
- **Troublesome Creek** -- This is a Recommended ACEC (external nomination), with a total of 998 acres (see Tables S-1 and S-2; Maps S-1 and S-6). This ACEC was expanded in the Proposed Plan due to the discovery of a new *Phacelia* species outside the original boundary.
- **Kinney Creek** -- This is a Recommended ACEC (external nomination), with a total of 588 acres (see Tables S-1 and S-2; Maps S-1 and S-7);

- **Barger Gulch Heritage Area** -- This is a Recommended ACEC, with a total of 535 acres proposed [NOTE: the KFO staff used the most current resource data available when reviewing the nominated ACECs for the DRMP/DEIS in 2007. In 2008, after additional field work, and review, the KFO determined that the Barger Gulch Heritage Area meets the relevance criteria of a significant historic value for an ACEC.] (See Tables S-1 and S-2; Maps S-1 and S-8).

Table S-1 describes the total number of proposed ACEC acres under each of the four alternatives in the DRMP and in the Proposed Plan. Table S-2 describes the relevant and importance criteria determinations.

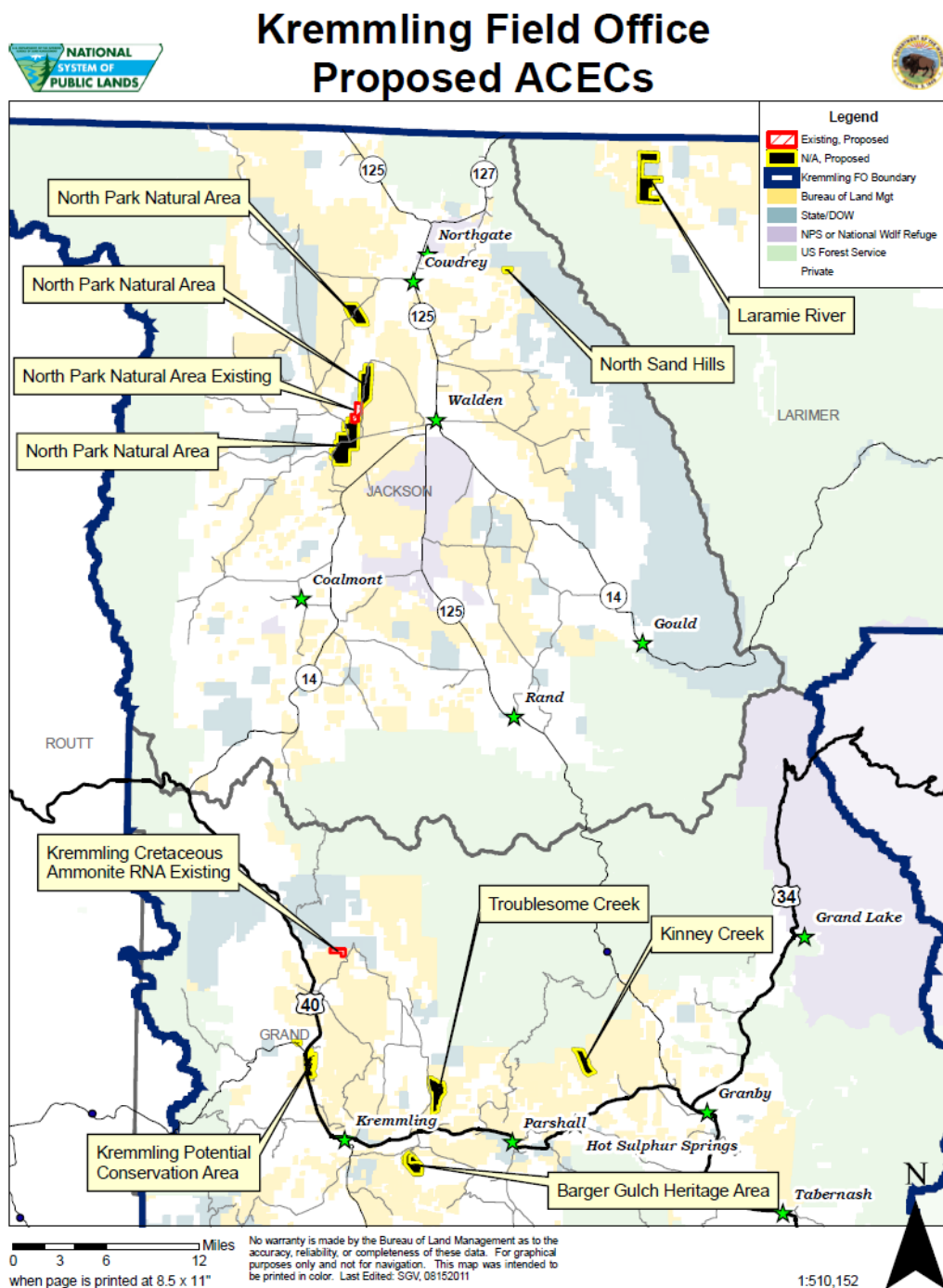
Table S-1: Proposed ACEC Acreage by Alternative

ACEC	Alternative				
	A	B	C	D	P
North Park Natural Area	318	4,444	4,444	318	4,444
Kremmling Cretaceous Ammonite	198	198	198	198	198
Kremmling Potential Conservation Area	0	636	636	0	674
Laramie River Valley Shale Outcrops	0	1,783	1,783	0	1,783
North Sand Hills	0	0	92	0	486
Troublesome Creek	0	974	974	0	998
Kinney Creek	0	0	588	0	588
Barger Gulch Heritage Area	0	535	535	0	535
TOTAL	516	8,570	9,250	516	9,705

Note: Column P is the Proposed RMP.

These areas will be identified as potential ACECs, and will be fully considered for designation and management in the PRMP/FEIS (in accordance with BLM Manual 1613, Areas of Critical Environmental Concern). For the areas found not to meet the relevance and importance criteria, the management prescriptions which are eventually established in the plan for such areas shall reflect consideration of the identified values.

Figure S-1: Map of Kremmling Field Office Proposed ACECs



ACEC Designation

As part of the process for developing the Kremmling DRMP/DEIS, the BLM Field Office ID Teams reviewed all BLM-managed public lands (surface acres) within the Planning Area in order to determine whether any areas should be considered for designation as ACECs.

The Federal Land Policy and Management Act of 1976 (FLPMA) (PL 94-579) requires that priority shall be given to the designation and protection of ACECs. ACECs are defined in the FLPMA [43 United States Code (USC) 1702(a), Section 103 and in 43 Code of Federal Regulations (CFR) 1601.0-5(a)] as “areas within the public lands where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards.”

The following analysis, and the resultant findings, for ACEC relevance and importance criteria has been performed in accordance with the FLPMA [43 USC 1712](c)(3) Section 202; 43 CFR 1610-7-2, and BLM Manual 1613).

Requirements for ACEC Designation

In order to be eligible for designation as an ACEC, an area must meet the relevance and importance criteria described in BLM Manual 1613, Areas of Critical Environmental Concern (see below) and in 43 CFR 1610.7-2:

(a) Areas having potential for Areas of Critical Environmental Concern (ACEC) designation and protection management shall be identified and considered throughout the resource management planning process (see 43 CFR 1610.4-1 through 1610.4-9).

(b) The inventory data shall be analyzed to determine whether there are areas containing resources, values, systems or processes or hazards eligible for further consideration for designation as an ACEC. In order to be a potential ACEC, both of the following criteria shall be met:

(1) *Relevance*. There shall be present a significant historic, cultural, or scenic value; a fish or wildlife resource or other natural system or process; or natural hazard.

(2) *Importance*. The above described value, resource, system, process, or hazard shall have substantial significance and values. This generally requires qualities of more than local significance and special worth, consequence, meaning, distinctiveness, or cause for concern. A natural hazard can be important if it is a significant threat to human life or property.

(c) The State Director, upon approval of a draft resource management plan, plan revision, or plan amendment involving ACECs, shall publish a notice in the Federal Register listing each ACEC proposed and specifying the resource use limitations, if any, which would occur if it were formally designated. The notice shall provide a 60-day period for public comment on the proposed ACEC designation. The approval of a resource management plan, plan revision, or plan amendment constitutes formal designation of

any ACEC involved. The approved plan shall include the general management practices and uses, including mitigating measures, identified to protect designated ACEC.

The determinations in this Report deal strictly with the relevance and importance criteria, and not with special management attention requirements.

Special management attention refers to “management prescriptions developed during preparation of an RMP or amendment expressly to protect the important and relevant values of an area from the potential effects of actions permitted by the RMP, including proposed actions deemed to be in conformance with the terms, conditions, and decisions of the RMP.” These are management measures that would not be necessary and prescribed if the relevant and important values were not present. A management prescription is considered to be special if it is unique to the area involved, and includes terms and conditions specifically designed to protect the values occurring within the area.

BLM Manual 1613 includes the following guidance on incorporating management prescriptions for potential ACECs into appropriate alternatives:

“During the formulation of alternatives, management prescriptions for potential ACEC’s are fully developed. Management prescriptions will generally vary across the plan alternatives. If there is no controversy or issues raised regarding the management of a potential ACEC, it may not be necessary to develop a range of management alternatives. In other words, management prescriptions may not vary significantly across alternatives. A potential ACEC (or portion thereof) must be shown as recommended for designation in any or all alternatives in the Draft RMP in which special management attention is prescribed to protect the resource or to minimize hazard to human life and safety. Because special management attention must be prescribed in at least one plan alternative, each potential ACEC will appear as a recommended ACEC in at least one plan alternative. Designation is based on whether or not a potential ACEC requires special management attention in the selected plan alternative (i.e. preferred alternative).”

Relevance and Importance characteristics are defined below (in accordance with BLM Manual 1613).

Relevance --

There shall be present a significant historic, cultural, or scenic value, a fish or wildlife resource or other natural system or process, or natural hazard.

An area meets the relevance criterion if it contains one or more of the following:

1. A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).
2. A fish and wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened species or habitat essential for maintaining species diversity).

3. A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities that are terrestrial, aquatic, or riparian; or rare geological features).
4. Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action might meet the relevance criteria if it is determined through the resource management planning process to have become part of a natural process.

Importance --

The value, resource, system, process, or hazard described above shall have substantial significance and value, which generally requires qualities of more than local significance and special worth, consequence, meaning, distinctiveness, or cause for concern. A natural hazard can be important if it is a significant threat to life or property.

An area meets the importance criterion if it meets one or more of the following:

1. Have more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.
2. Have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.
3. Has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of the Federal Land Policy and Management Act (FLPMA).
4. Have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare.
5. Poses a significant threat to human life and safety or to property.

Evaluation Process

In compiling a list of areas to be analyzed in this report, the BLM ID teams followed the guidance set forth in BLM Manual 1613 and considered:

1. Existing ACECs.
2. Areas recommended for ACEC consideration (external and internal nominations).
3. Areas identified through inventory and monitoring.
4. Adjacent designations of other Federal and State agencies.

ACECs may be nominated by BLM staff, other agencies, or members of the public at any time. During the RMP revision scoping process, the BLM specifically solicited nominations from the public and other agencies. A fact sheet on special designations was distributed at the scoping meetings and made available on the RMP website: <http://www.blm.gov/rmp/co/kfo-gsfo/>. Specifically, the fact sheet stated:

“BLM wants your ideas on ACECs

What areas do you think should be identified and proposed as an ACEC and what areas should be re-evaluated to determine if ACEC designation is still necessary to protect the relevant and important values?”

As part of the formal outreach process, the BLM received nominations from the Colorado Natural Heritage Program (CNHP) and the Center for Native Ecosystems (CNE). The BLM staff also reviewed information from BLM inventories, the Colorado Division of Wildlife species of concern data, and other reports (such as the Geological Advisory Group (GAG) report) to ensure that all potentially relevant and important values within the planning areas were considered.

In evaluating the large number of biological proposals, the BLM determined an area met the relevance criteria for fish and wildlife or natural processes or systems if it contained any special status species (listed, candidate, or BLM sensitive species) or if not a special status species, it contained species or plant communities that were either ranked G1, G2, S1, or S2 by CNHP (see Page S-25 for definitions).

The analysis area for the identified values includes all BLM-administered public lands, including both federal surface and mineral estate. BLM does not manage private surface or private mineral estate as part of an ACEC. However, BLM does manage federal mineral estate overlain by private surface. Thus, when making land use allocations and decisions relating to federal minerals as part of the planning process, BLM will consider resource values on these “split-estate” lands.

The maps included in this report are for those areas that were found to meet the relevance and importance criteria. The maps indicate the “analysis unit” for the identified values, and not necessarily the proposed ACEC size. The boundaries of some of the proposed external nominations were modified to accurately represent where the values exist. The size and management prescriptions for each ACEC may vary by alternative to reflect a balance between the goals and objectives of the alternative and values being protected (BLM Manual 1613.2.22.B.1&2).

The following tables summarize the proposed ACECs evaluated, the values assessed, and whether the criteria were met (including supporting information).

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Table S-2: Kremmling Relevant and Important Criteria Determinations - Kremmling ACEC Determinations

<i>Note:</i> The shaded columns met the relevance and importance criteria and are being carried forward for analysis.					
Existing or Proposed ACECs	Values Assessed	Relevance Criteria (Resources)	Importance Criteria	Carried forward for Analysis	Comments
Existing and Internally Proposed ACECs					
North Park Natural Area (existing)	Plant - North Park Phacelia G1S1	Criterion 2	Criteria 1 and 2	Yes	This area meets the relevance criteria because it contains habitat for the Endangered plant North Park Phacelia. It meets the importance criteria because it has a significant amount of the population, which gives the area special worth (300 acres, merged with larger proposed North Park Natural Area ACEC, see below).

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Existing or Proposed ACECs	Values Assessed	Relevance Criteria (Resources)	Importance Criteria	Carried forward for Analysis	Comments
Kremmling Cretaceous Natural Area (existing)	Fossils-Late Cretaceous Paleontological site; Wildlife – Greater sage-grouse (BLMS)	Criterion 3	Criteria 1 and 2	Yes	This area meets the relevance criteria for a natural process or system, and has significant cultural and scenic values. It meets the importance criteria as a World Class Paleontological Research and publicly interpreted visitation location. The Kremmling Cretaceous Ammonite Locality contains a unique and rich fossil assemblage of Giant Ammonites and other extinct species of marine fauna. Ongoing research by the University of South Florida has recently identified 18 new species of extinct shell fish from this locality. The complex and complete geologic stratigraphy also allows the University to compare rapid evolutionary

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					change evidenced in the fossils, with a rapidly changing environment, and to address environmental reconstruction issues. Geochemical data recovered from the fossils, and from modern corals off the coast of Florida, is also studied to help compare modern environmental change known as the “green house” effect with evidence from 72 million years ago to help answer questions regarding how much of the change can be attributed to natural cycles, and how much can be attributed to human exploitation of the natural resources, especially carbon fuels. The stratigraphy has also been used by the Scripps Institute to help date

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					dinosaur fossils in Mongolia. A museum exhibit at the Denver Museum of History and Natural Science (1997 to 1998) featured the Kremmling Giant Ammonites. The site has been featured in various professional American and European journals, avocational publications, geology books, and newspapers (such as the Washington Post). Visitors have come from many States and countries in order to visit this unique fossil location. In addition, this area contains important core habitat for Greater sage-grouse, a BLM designated Sensitive Species.

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<i>Note:</i> The shaded columns met the relevance and importance criteria and are being carried forward for analysis.					
Existing or Proposed ACECs	Values Assessed	Relevance Criteria (Resources)	Importance Criteria	Carried forward for Analysis	Comments
Barger Gulch Heritage Area	Archaeology - Folsom 10,500 years before present (BP) Fossils – camel and horse, to name a few.	Criterion 1	Criteria 1, 2, and 3	Yes	This area meets the relevance criteria for a natural process or system, and has significant cultural and scenic values. It meets the importance criteria because human occupation in the area can be traced back 10,500 years, indicating periodic reuse of this location throughout the occupational history of Middle Park. The Barger Gulch Heritage Area is listed on the National Register of Historic Places. The importance of the site also shows that Paleoindian peoples occupied that area year around and used the area for lithic procurement and subsistence. The Barger Gulch Heritage Area also contains a variety of important vertebrate fossils.

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Existing or Proposed ACECs	Values Assessed	Relevance Criteria (Resources)	Importance Criteria	Carried forward for Analysis	Comments
The Colorado Natural Heritage Program (CNHP) nominated 10 areas for ACEC designation. These areas each have some biological communities or species that are rare or of exemplary quality, and are recommended as Potential Conservation Areas (PCAs) in CNHP's database. Each of the 10 areas is evaluated below. [Note: Definitions of Natural Heritage Imperilment Ranks (such as G/S1), CNHP Element Occurrence Ranks and their Definitions (such as A or B), and Natural Heritage Program Biological Diversity Ranks and their Definitions (such as B1) are provided at the end of this Table.]					
Case Reservoir Bluffs PCA (B2 – Very High Biodiversity Significance)	Plant - North Park Phacelia G1S1	Criterion 2	None	No	The site meets the relevance criteria because it supports several small occurrences of North Park Phacelia. The area does not meet the importance criteria because it is not an exemplary occurrence (it is a C-ranked occurrence); it is not of substantial significance when compared to other North Park Phacelia sites, and it represents a very small percentage of the total population.
Chalk Bluffs PCA (B3 – High Biodiversity Significance)	Plant – Dropleaf wild buckwheat	Criterion 2	None	No	The site meets the relevance criteria because it supports 2

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Biodiversity Significance)	G3S2 and Oregon bitterroot G5S2				State rare (S2) plant species ranked as excellent (A-ranked) and good (B-ranked) occurrences. The site does not meet the importance criteria because it is not more than locally significant; it does not have qualities that give it substantial value, and neither species is a BLM Sensitive Species.
Kremmling PCA (B1 – Outstanding Biodiversity Significance)	Plant - Osterhout milkvetch G1S1; Wildlife – Greater sage-grouse (BLMS)	Criterion 2	Criteria 1 and 2	Yes (modified boundary)	This area meets the relevance criteria because it contains habitat for the Endangered Species (plant) Osterhout milkvetch. It meets the importance criteria because it has a significant amount of the population, which gives the area special worth. In addition, this area contains important core habitat for Greater sage-grouse, a BLM

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					Sensitive Species (1,548 acres recommended; BLM proposes 636 acres for analysis).
Laramie River PCA (B1) <i>(Renamed from “Laramie River Valley Shale Outcrops” because it includes acres outside the proposed boundary)</i>	Plant – North Park Phacelia G1S1 Dropleaf wild buckwheat G3S2, Larchleaf beardtongue G4T3Q/S2 Ward’s goldenweed G3S1	Criterion 2	Criteria 1 and 2	Yes (modified boundary)	This area meets the relevance criteria because it contains habitat for the Endangered Species (plant) North Park Phacelia. It meets the importance criteria because it has several rare species that gives the area special worth. In addition, this area supports the only population of North Park Phacelia found outside of Jackson County (1,783 acres proposed for analysis; includes acres in the Lower Laramie River PCA).
Lawson Butte PCA (B3)	Plant-- Nuttalls desert parsley G3/S1	Criterion 2	None	No	The site meets the relevance criteria because it supports one B-ranked occurrences of Nuttall’s desert-parsley. The area does not meet the

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<i>Note:</i> The shaded columns met the relevance and importance criteria and are being carried forward for analysis.					
Existing or Proposed ACECs	Values Assessed	Relevance Criteria (Resources)	Importance Criteria	Carried forward for Analysis	Comments
					importance criteria because it is not of substantial significance or value when compared to other sites with Nuttall's desert-parsley. In addition, this area has few acres, and represents a small percentage of the total population and habitat.
North Park Natural Area PCA (B1)	Plant - North Park Phacelia (<i>Phacelia formosula</i>) G1S1 and other rare plant species Wildlife – Greater sage-grouse (BLMS)	Criterion 2	Criteria 1 and 2	Yes (modified boundary)	This area meets the relevance criteria because it contains habitat for the Endangered Species (plant) North Park Phacelia. It meets the importance criteria because it has a significant amount of the population, which gives the area special worth. In addition, this area contains several Greater sage-grouse leks and important core habitat for this species (8,440 acres recommended; BLM

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Existing or Proposed ACECs	Values Assessed	Relevance Criteria (Resources)	Importance Criteria	Carried forward for Analysis	Comments
					propose 4,444 acres for analysis; includes existing 318-acre North Park Phacelia ACEC).
North Sand Hills PCA (B1)	Plant - Boat-shaped bugseed (<i>Corispermum navicula</i>) G1?S1	Criterion 2	Criteria 1 and 2	Yes (modified boundary)	This area meets the relevance criteria because it contains habitat for the rare plant Boat-shaped bugseed. It meets the importance criteria because it has a significant amount of the population, which gives the area special worth; and, it is the only area where this plant is found currently (380 acres recommended; BLM proposes 92 acres for analysis).
Rock Creek PCA (B1)	Plant - Osterhout milkvetch G1S1, Nuttall's desert-parsley G3S1, and other rare plant species	Criterion 2	None	No	The site meets the relevance criteria because it supports several small A-ranked occurrences of Osterhout milkvetch and Nuttall's desert-parsley. The area does not meet the importance

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Existing or Proposed ACECs	Values Assessed	Relevance Criteria (Resources)	Importance Criteria	Carried forward for Analysis	Comments
					criteria because it is not of substantial significance or value when compared to other sites with Osterhout milkvetch and Nuttall's desert-parsley. In addition, this area has few plants and represents a very small percentage of the total population.
Troublesome Creek PCA (B1)	Plant – Penland's beardtongue G1S1, Osterhout milkvetch G1S1, and Nuttalls desert parsley G3/S1 Wildlife – Greater sage-grouse (BLMS)	Criterion 2	Criteria 1 and 2	Yes (modified boundary)	This area meets the relevance criteria because it contains habitat for two Endangered Species (plants). It meets the importance criteria because it has three rare species that gives the area special worth; and, it is the only area where Penland beardtongue occurs. In addition, this area contains important brood-rearing and winter habitat for Greater sage-grouse, a BLM Sensitive Species (1,243 acres

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Existing or Proposed ACECs	Values Assessed	Relevance Criteria (Resources)	Importance Criteria	Carried forward for Analysis	Comments
					recommended; BLM proposes 974 acres for analysis).
Upper Troublesome Creek PCA (B2)	Plant communities-- Drummond's willow / water sedge (G2G3/S2), American mannagrass community (G5/S2), and other G3/S3 communities.	Criterion 2	None	No	The site meets the relevance criteria because it supports several state rare plant communities ranked as a good (B-ranked) occurrences. The area does not meet the importance criteria because it is not of substantial significance or value, and is not more than locally significant.
<p>The Center for Native Ecosystems (CNE) nominated numerous potential ACECs. Included on their list were all 159 of the Potential Conservation Areas (PCAs) identified by CNHP for the KFO. Of these, only 35 are within BLM-managed public lands. The KFO ID Team analyzed each site individually. Of these 35 sites, five were eliminated from further consideration because the value(s) in question were not located on BLM-managed public lands, and 10 were dropped from further consideration because they did not meet any of the relevance or importance criteria.</p> <p>Ten (10) of the PCAs were also recommended by CNHP (analyzed above). The remaining 10 PCAs appear to meet the relevance and/or importance definition and criteria because the sites contain known occurrences or suitable habitat for federally listed or BLM Sensitive plants or animals or a significant plant community. The values in these 10 PCAs, and the need for special management</p>					

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Existing or Proposed ACECs	Values Assessed	Relevance Criteria (Resources)	Importance Criteria	Carried forward for Analysis	Comments
attention, are analyzed below:					
Chimney Rock PCA (B3)	Plant/wildlife— Larch leaf beardtongue G4T3Q/S2, Greater sandhill Crane G5S2 (not recorded on BLM)	Criterion 2	None	No	The site meets the relevance criteria because it supports an A-ranked (excellent) occurrence of a globally vulnerable (G4T2Q/S2) subspecies of larch-leaf beardtongue (<i>Penstemon laricifolius</i> ssp. <i>exilifolius</i>). However, it does not meet the importance criteria because the PCA, as mapped by the CNHP, contains only one occurrence of larch-leaf beardtongue; and most of the PCA and species occurrences are on private and National Forest System lands. The occurrence on BLM-managed public lands is not exemplary or of special worth or consequence relative to other larch-leaf beardtongue

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Existing or Proposed ACECs	Values Assessed	Relevance Criteria (Resources)	Importance Criteria	Carried forward for Analysis	Comments
					populations or habitat. In addition, the larch-leaf beardtongue is not a BLM Sensitive Species.
Colorado River Radium to Red Dirt Creek PCA (B3)	Plant Community Multiple species including Harrington's Beardtongue G3S3, Many-stem Stickleaf G3S3, Riparian Shrubland G4S2,	Criteria 2 and 3	None	No	The site meets the relevance criteria because it supports one small AB-ranked occurrence of Harrington's beardtongue and two occurrences of a B-ranked G4S2 plant community. However, the site does not meet the importance criteria because it is only locally significant, and does not have qualities that give it special worth compared to other Harrington's beardtongue and Riparian Shrubland sites. The site is not especially unique; and, it is not considered essential for the long-term protection and maintenance of

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Existing or Proposed ACECs	Values Assessed	Relevance Criteria (Resources)	Importance Criteria	Carried forward for Analysis	Comments
					this species/community.
Horse Gulch PCA (B1)	Plant— Osterhout milkvetch G1S1	Criterion 2	None	No	The site meets the relevance criteria because it supports a small A-ranked population of the Endangered Species (plant) Osterhout milkvetch. However, it does not meet the importance criteria because it is not unique or have substantial significance compared to other areas where the population occurs. This area has few plants and represents a small percentage of the total population.
Little Hohnholz Lake PCA (B3)	Pale blue-eyed grass (G2G3/S2S3) alkaline spring wetlands (GUS2), Larchleaf beardtongue G4T3Q/S2, Dropleaf wild buckwheat	Criteria 2 and 3	None	No	The site meets the relevance criteria because it supports the BLM Sensitive Species Pale blue-eyed grass, several State rare plants, and one plant community. However both the Pale blue-eyed grass and plant community are C-ranked

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Existing or Proposed ACECs	Values Assessed	Relevance Criteria (Resources)	Importance Criteria	Carried forward for Analysis	Comments
	G3S2.				occurrences, and do not meet the importance criteria. In addition the Larchleaf beardtongue and Dropleaf wild buckwheat are not BLM Sensitive Species, and neither occurrence is exemplary or of substantial significance relative to other populations or habitat.
Lower Laramie River Valley PCA (B3) <i>(This area has been combined with the Laramie River PCA.)</i>	Plant-- Larchleaf beardtongue G4T3Q/S2,	Criterion 2	Criteria 1 and 2	Yes (modified boundary)	The site meets the relevance criteria because it supports an A-ranked (excellent) occurrence of a globally vulnerable (G4T2Q/S2) subspecies of larch-leaf beardtongue. It meets the importance criteria because the occurrence on BLM is exemplary and significant, due to a high concentration of individuals that represent a considerable percentage of the

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<i>Note:</i> The shaded columns met the relevance and importance criteria and are being carried forward for analysis.					
Existing or Proposed ACECs	Values Assessed	Relevance Criteria (Resources)	Importance Criteria	Carried forward for Analysis	Comments
					total population (15,562 acres recommended; BLM proposes 800 acres for analysis).
Miller Gulch PCA (B3)	Mixed Mountain shrubland (G2G3/S2S3), little green sedge (G5/S1). Harrington beardtongue (G3/S3)	Criteria 2 and 3	None	No	The site meets the relevance criteria because it supports the BLM Sensitive Species little green sedge and Harrington beardtongue, as well as one G2G3/S2S3 plant community. However, the Harrington beardtongue are small, C-ranked occurrences and do not meet the importance criteria. In addition, the little green sedge and Mixed Mountain shrubland (both B-ranked) are small areas, and not exemplary or of substantial significance to meet the importance criteria.
Sheephorn Creek at Radium PCA (B3)	Harrington beardtongue (G3/S3)	Criterion 2	None	No	The site meets the relevance criteria because it supports several small AB-ranked

Table S-2: Kremmling Relevant and Important Criteria Determinations - Kremmling ACEC Determinations

<i>Note:</i> The shaded columns met the relevance and importance criteria and are being carried forward for analysis.					
Existing or Proposed ACECs	Values Assessed	Relevance Criteria (Resources)	Importance Criteria	Carried forward for Analysis	Comments
					occurrences of Harrington's beardtongue. However, the site does not meet the importance criteria because it is not more than locally significant, and does not have qualities that give it special worth compared to other Harrington's beardtongue sites. The site is not especially unique; and it is not considered essential for the long-term protection and maintenance of this species.
West Slope of Junction Butte PCA (B3)	plant community-- Utah serviceberry / bluebunch wheatgrass shrubland G2G3/S2S3	Criterion 3	None	No	The site meets the relevance criteria because it supports a globally and State vulnerable (G2G3/S2S3) plant community ranked as a good (B-ranked) occurrence. However, the area does not meet the importance criteria because it is not of substantial

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<i>Note:</i> The shaded columns met the relevance and importance criteria and are being carried forward for analysis.					
Existing or Proposed ACECs	Values Assessed	Relevance Criteria (Resources)	Importance Criteria	Carried forward for Analysis	Comments
					significance when compared to other plant communities of the same type.
Willow Creek Pass PCA (B3)	Plant communities-- <i>Artemisia cana</i> ssp. <i>viscidula</i> / <i>Festuca thurberi</i> (G2G3/S2S3) and three G3 riparian plant communities.	Criterion 3	None	No	The site meets the relevance criteria because it supports a globally and State vulnerable (G2G3/S2S3) plant community ranked as a good (B-ranked) occurrence. However, the area does not meet the importance criteria because it is not substantially significant when compared to other plant communities of the same type, and the majority of the site and values are on National Forest System lands.
Yarmony Creek PCA (B3)	Montane Riparian Forest G2G3/S2	Criterion 3	None	No	This area satisfies the relevance criteria because it contains a globally rare (G2G3/S2) plant community. However, the area does not meet the importance criteria

Table S-2: Kremmling Relevant and Important Criteria Determinations - Kremmling ACEC Determinations

<i>Note:</i> The shaded columns met the relevance and importance criteria and are being carried forward for analysis.					
Existing or Proposed ACECs	Values Assessed	Relevance Criteria (Resources)	Importance Criteria	Carried forward for Analysis	Comments
					because the community is not an exemplary occurrence (it is a C-ranked occurrence); it is not substantially significant when compared to other plant communities of the same type; and the majority of the site is in private surface ownership.
Kinney Creek	Colorado River cutthroat trout conservation populations,	Criteria 2 and 3	Criteria 1 and 2	Yes	This area meets the relevance criteria for wildlife resources (BLM 1613.1.11.A(2) & (3)), as Kinney Creek contains a genetically pure population of native, wild, naturally reproducing Colorado River cutthroat trout that have been identified as a Core Conservation Population in the Conservation Agreement and Strategy for Colorado River Cutthroat Trout, in the

Table S-2: Kremmling Relevant and Important Criteria Determinations - Kremmling ACEC Determinations

<i>Note:</i> The shaded columns met the relevance and importance criteria and are being carried forward for analysis.					
Existing or Proposed ACECs	Values Assessed	Relevance Criteria (Resources)	Importance Criteria	Carried forward for Analysis	Comments
					States of Colorado, Utah, and Wyoming (June 2006). In addition, the watershed in which these fish live supports vital ecosystem processes and maintains crucial habitats important for the long-term survival of this fish species. Kinney Creek also satisfies the importance criteria (BLM 1613.1.11.B (1) & (2)) since this stream is a regionally important producer of genetically pure and naturally reproducing Colorado River cutthroat trout. Core Conservation populations are important in the overall conservation of the species, and are given the highest priority for management and protection. Given the genetic purity of these fish, the

Table S-2: Kremmling Relevant and Important Criteria Determinations - Kremmling ACEC Determinations

<i>Note:</i> The shaded columns met the relevance and importance criteria and are being carried forward for analysis.					
Existing or Proposed ACECs	Values Assessed	Relevance Criteria (Resources)	Importance Criteria	Carried forward for Analysis	Comments
					population is unique and irreplaceable. The other Colorado River cutthroat trout Core Conservation population in the KFO is Antelope Creek. However, data collected from 2006 and 2007 indicates there are no cutthroat trout on BLM-managed public lands or directly upstream; therefore, Antelope Creek will not be proposed as an ACEC (588 acres proposed for analysis; no acres or boundary included in the proposal).
Identified lynx habitat, including USFS-mapped habitat on BLM-managed public lands in the following Lynx Analysis Units:	Wildlife	Criterion 2	None	No	These sites meet the relevance criteria because they contain habitat for the Threatened Species Canada Lynx. However, these areas do not meet the importance criteria because BLM habitat within

Table S-2: Kremmling Relevant and Important Criteria Determinations - Kremmling ACEC Determinations

<i>Note:</i> The shaded columns met the relevance and importance criteria and are being carried forward for analysis.					
Existing or Proposed ACECs	Values Assessed	Relevance Criteria (Resources)	Importance Criteria	Carried forward for Analysis	Comments
Fraser and Williams Fork					these LAUs is marginal and not unique compared to other habitat containing the species. In addition, very few acres within these LAUs are on BLM-managed public lands.
Greater sage-grouse production and brood-rearing habitat, including all leks plus 5.5 km buffers	Wildlife	Criterion 2	None	No	These areas meet the relevance criteria because they contain habitat for the BLM Sensitive Species Greater sage-grouse. However they do not meet the importance criteria because these areas are not unique or more than locally significant compared to other habitat within the range of the species. In addition several recommended ACECs contain important habitat for Greater sage-grouse (North Park Natural Area, Kremmling PCA, Troublesome Creek, and the

Table S-2: Kremmling Relevant and Important Criteria Determinations - Kremmling ACEC Determinations

<i>Note:</i> The shaded columns met the relevance and importance criteria and are being carried forward for analysis.					
Existing or Proposed ACECs	Values Assessed	Relevance Criteria (Resources)	Importance Criteria	Carried forward for Analysis	Comments
					Kremmling Cretaceous Ammonite Natural Area)
Osterhout milkvetch habitat, plus 300-foot. Buffers	Plant	Criterion 2	None	No	These areas meet the relevance criteria because they contain habitat for the Endangered Species (plant) Osterhout milkvetch. However, they do not meet the importance criteria because not all sites are substantially significant. Some habitat with high population densities will be proposed for ACEC designation (see Troublesome Creek PCA and Kremmling PCA).
Penland beardtongue habitat, plus 300-foot buffers	Plant	N/A	N/A	No	This area encompasses the Troublesome Creek PCA, which is already being carried forward for analysis.
North Park Phacelia habitat, plus 300-foot buffers	Plant	Criterion 2	None	No	These areas meet the relevance criteria because they contain habitat for the

Table S-2: Kremmling Relevant and Important Criteria Determinations - Kremmling ACEC Determinations

<i>Note:</i> The shaded columns met the relevance and importance criteria and are being carried forward for analysis.					
Existing or Proposed ACECs	Values Assessed	Relevance Criteria (Resources)	Importance Criteria	Carried forward for Analysis	Comments
					Endangered Species (plant) North Park Phacelia. However, they do not meet the importance criteria because not all sites are substantially significant. Some habitat with high population densities will be proposed for ACEC designation (see the North Park Natural Area PCA and the Laramie River Valley Shale Outcrops PCA).
Larch-leaf beardtongue (Penstemon laricifolius ssp. exilifolius) habitat, plus 300-foot buffers	Plant	Criterion 2	None	No	These areas meet the relevance criteria because they contain habitat for the State rare species Larch-leaf beardtongue. However, they do not meet the importance criteria because not all sites are significant or have special worth. Some habitat with high population densities will be proposed for ACEC

Table S-2: Kremmling Relevant and Important Criteria Determinations - Kremmling ACEC Determinations

<i>Note:</i> The shaded columns met the relevance and importance criteria and are being carried forward for analysis.					
Existing or Proposed ACECs	Values Assessed	Relevance Criteria (Resources)	Importance Criteria	Carried forward for Analysis	Comments
					designation (see the Lower Laramie River Valley PCA).
Crescent bugseed (<i>Corispermum navicula</i>) habitat, plus 300-foot buffers (plus additional buffering from ORV-use, if necessary)	Plant	Criterion 2	None	No	These areas meet the relevance criteria because they contain habitat for the G1S1 species Crescent bugseed. However, they do not meet the importance criteria because not all sites are significant or have special worth. Some habitat with high population densities will be proposed for ACEC designation (see the North Sand Hills PCA which is being carried forward for analysis).
CNHP North Platte NCA	Plant—NP Phacelia	Criterion 2	None	No	This area meets the relevance criteria because it contains habitat for the Endangered Species (plant) North Park Phacelia. However, it does not meet the importance criteria because not all sites are

Table S-2: Kremmling Relevant and Important Criteria Determinations - Kremmling ACEC Determinations

<i>Note:</i> The shaded columns met the relevance and importance criteria and are being carried forward for analysis.					
Existing or Proposed ACECs	Values Assessed	Relevance Criteria (Resources)	Importance Criteria	Carried forward for Analysis	Comments
					substantially significant. Some habitat with high population densities will be proposed for ACEC designation (see the North Park Natural Area PCA and the Laramie River Valley Shale Outcrops PCA).

Natural Heritage Program Definitions -- Definition of Natural Heritage Imperilment Ranks

G/S1 -- Critically imperiled globally/state because of rarity (five or fewer occurrences in the world/state; or 1,000 or fewer individuals), or because some factor of its biology makes it especially vulnerable to extinction.

G/S2 -- Imperiled globally/state because of rarity (6 to 20 occurrences, or 1,000 to 3,000 individuals), or because other factors demonstrably make it very vulnerable to extinction throughout its range.

G/S3 -- Vulnerable through its range or found locally in a restricted range (21 to 100 occurrences, or 3,000 to 10,000 individuals).

G/S4 -- Apparently secure globally/state, though it may be quite rare in parts of its range, especially at the periphery. Usually more than 100 occurrences and 10,000 individuals.

G/S5 -- Demonstrably secure globally/state, though it may be quite rare in parts of its range, especially at the periphery.

G#? -- Indicates uncertainty about an assigned global rank.

G/SU -- Unable to assign rank due to lack of available information.

GQ -- Indicates uncertainty about taxonomic status.

G#T# -- Trinomial rank (T) is used for subspecies or varieties. These taxa are ranked on the same criteria as G1-G5.

S? -- Unranked. Some evidence that species may be imperiled, but awaiting formal rarity ranking.

[Note: Where two numbers appear in a state or global rank (for example, S2S3), the actual rank of the element is uncertain, but falls within the stated range.]

CNHP Element Occurrence Ranks and their Definitions

A -- Excellent viability

B -- Good viability

C -- Fair viability.

D -- Poor viability

Natural Heritage Program Biological Diversity Ranks and their Definitions

B1 Outstanding Significance (indispensable) --

Only known occurrence of an element

A-ranked occurrence of a G1 element (or at least C-ranked if best available occurrence)

Concentration of A- or B-ranked occurrences of G1 or G2 elements (four or more)

B2 Very High Significance --

B- or C-ranked occurrence of a G1 element

A- or B-ranked occurrence of a G2 element

One of the most outstanding (for example, among the five best) occurrences rangewide (at least A- or B-ranked) of a G3 element.

Concentration of A- or B-ranked G3 elements (four or more)

Concentration of C-ranked G2 elements (four or more)

B3 High Significance --

C-ranked occurrence of a G2 element

A- or B-ranked occurrence of a G3 element

D-ranked occurrence of a G1 element (if best available occurrence)

Up to five of the best occurrences of a G4 or G5 community (at least A- or B-ranked) in an ecoregion (requires consultation with other experts)

B4 Moderate Significance --

Other A- or B-ranked occurrences of a G4 or G5 community

C-ranked occurrence of a G3 element

A- or B-ranked occurrence of a G4 or G5 S1 species (or at least C-ranked if it is the only state, provincial, national, or ecoregional occurrence)

- 48 Concentration of A- or B-ranked occurrences of G4 or G5 N1-N2, S1-S2 elements (four or more)
- 49 D-ranked occurrence of a G2 element
- 50 At least C-ranked occurrence of a disjunct G4 or G5 element
- 51 Concentration of excellent or good occurrences (A- or B-ranked) of G4 S1 or G5 S1 elements (four or more)
- 52 **B5 General or State-wide Biological Diversity Significance --**
- 53 Good or marginal occurrence of common community types and globally secure S1 or S2 species

Figure S-2: Map – North Park Natural Area Recommended ACEC

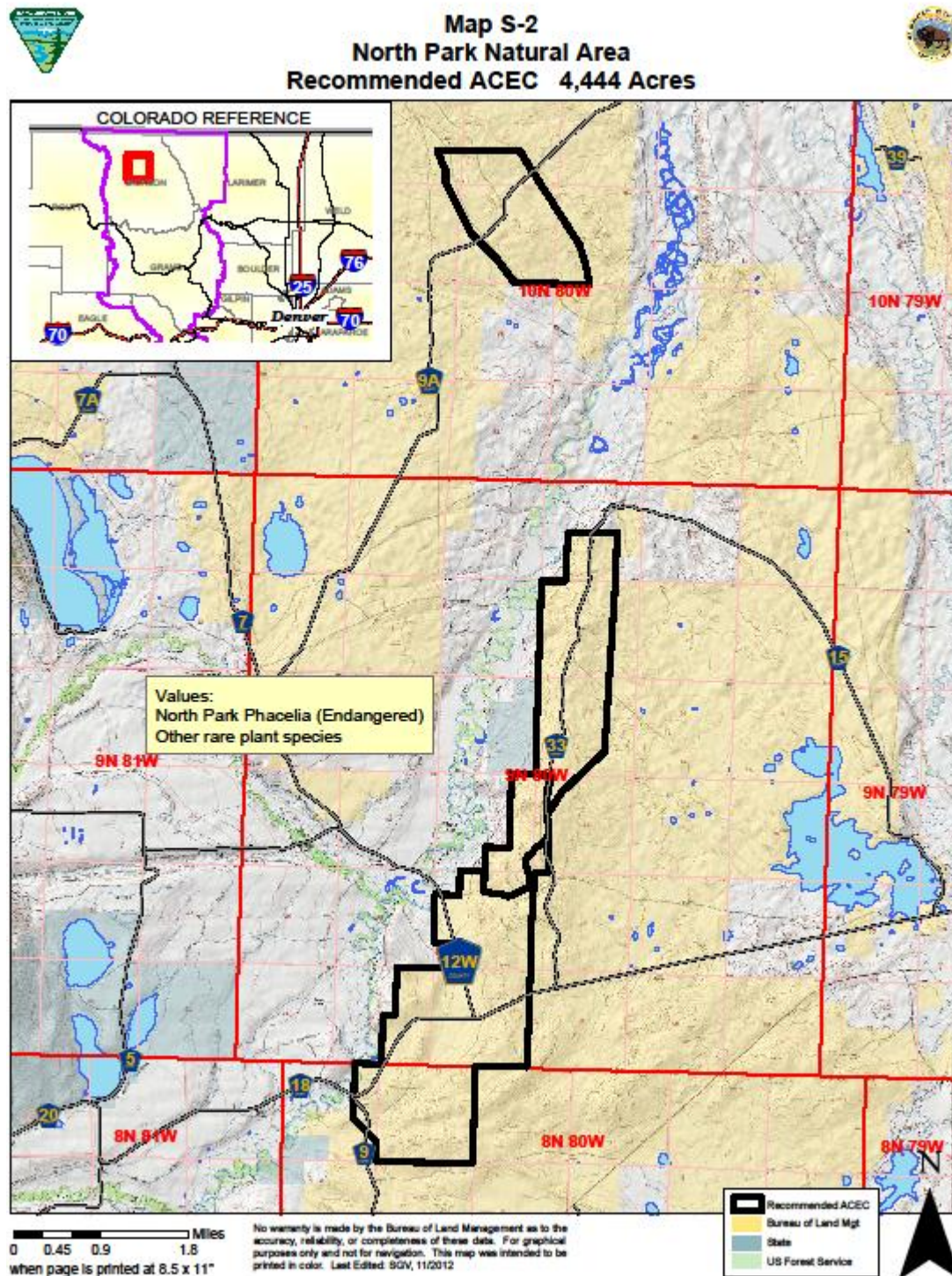


Figure S-3: Map – Kremmling PCA Recommended ACEC

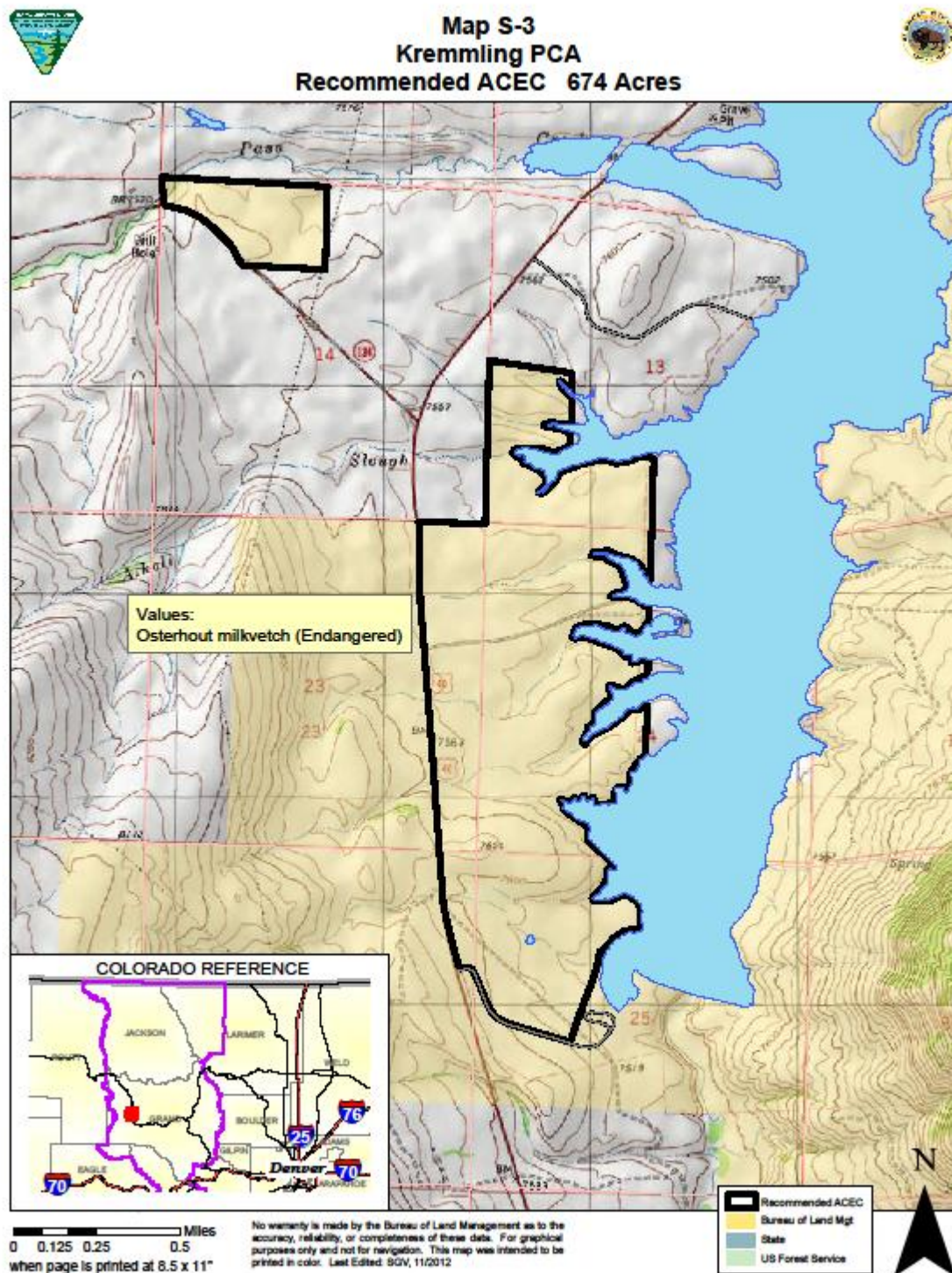


Figure S-4: Map – Laramie River Valley Shale Outcrops Recommended ACEC

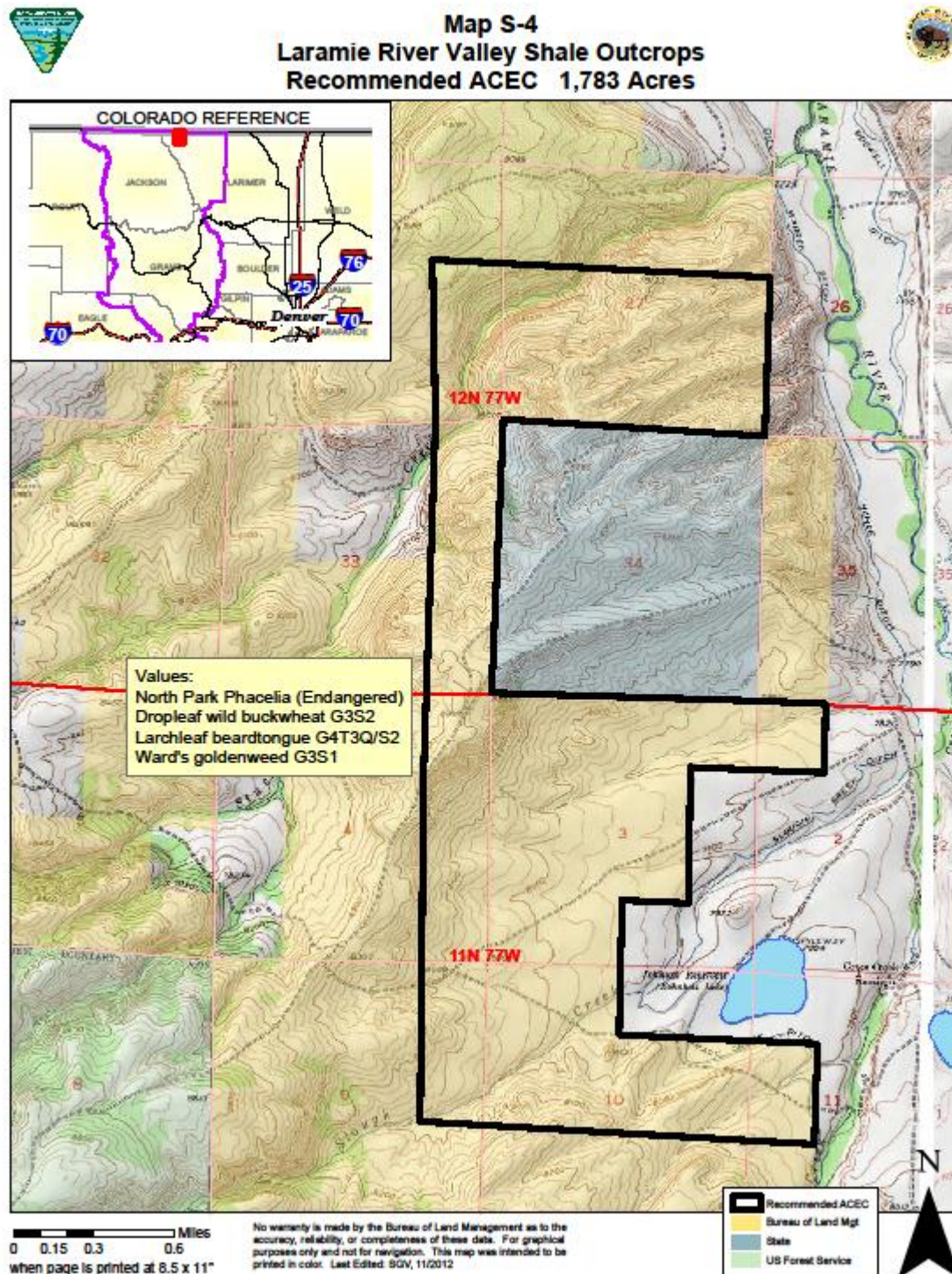


Figure S-5: Map – North Sand Hills Recommended ACEC

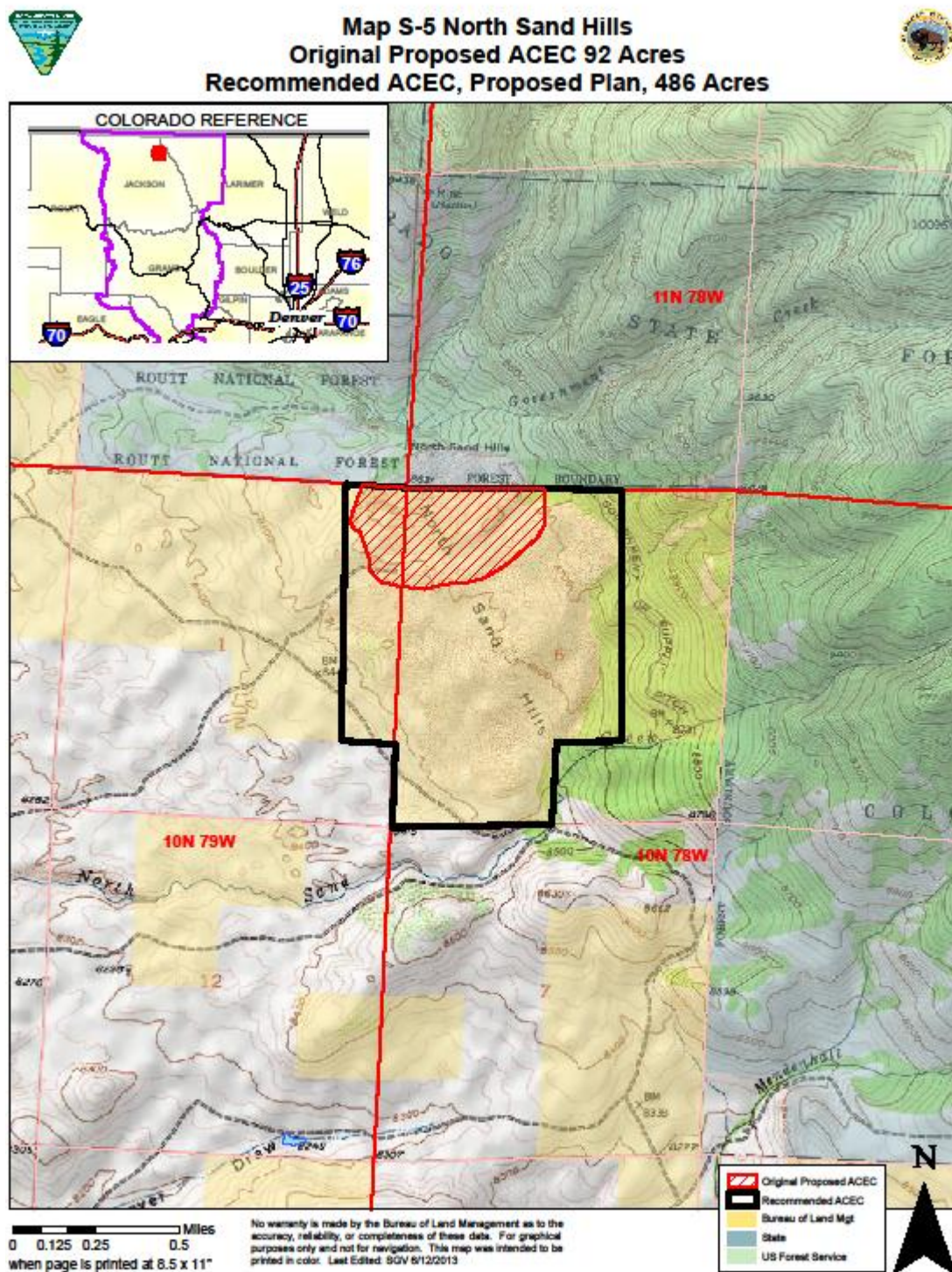


Figure S-6: Map – Troublesome Creek Recommended ACEC

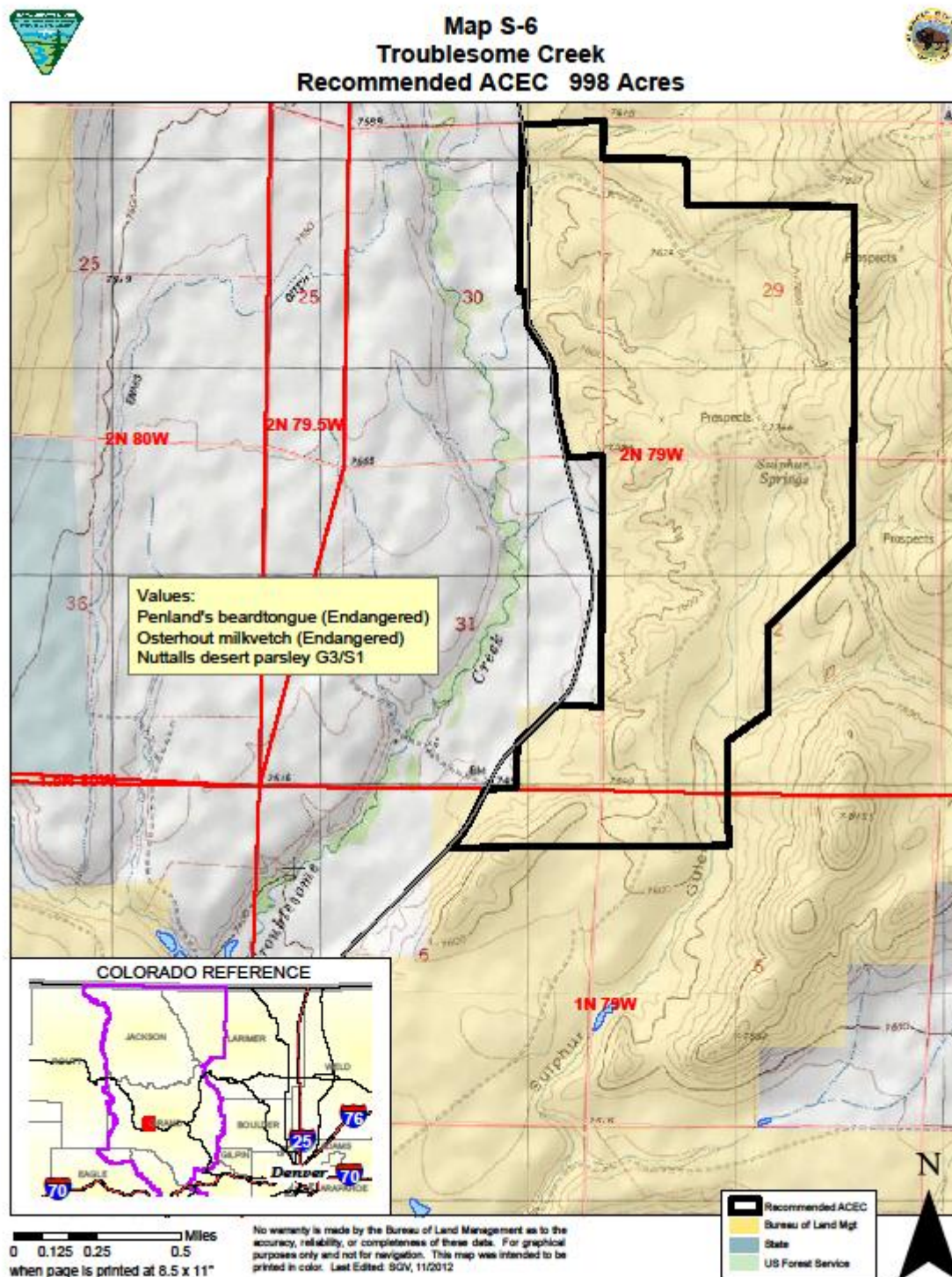


Figure S-7: Map – Kinney Creek Recommended ACEC

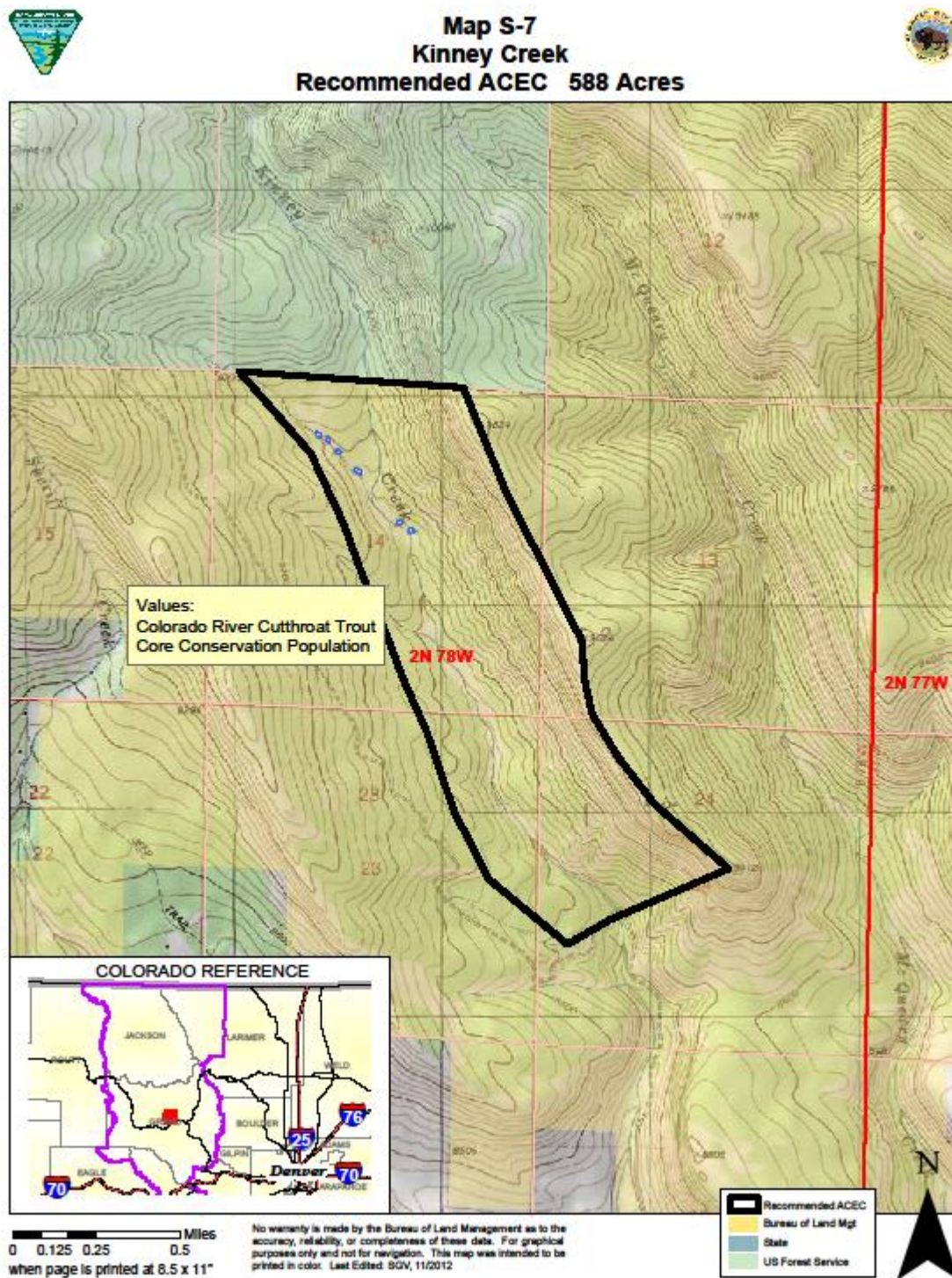


Figure S-8: Map – Barger Gulch Recommended ACEC

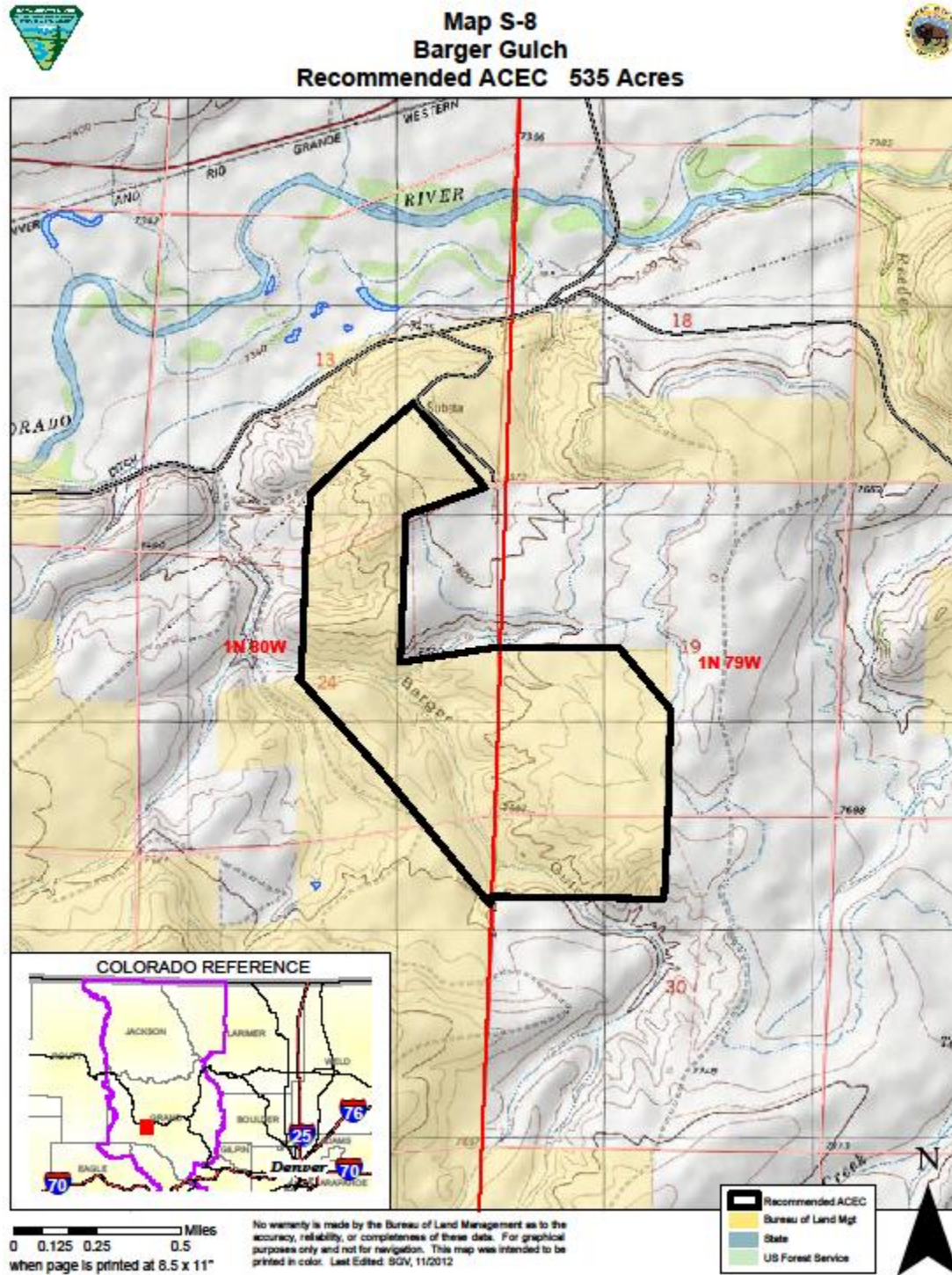


Figure S-9: Map – Kremmling Cretaceous Ammonite ACEC

